LOMONOS, G.K., in[illegible]ner(Konotop)

Water cooling of electric meters. Elektrichestvo no.8:77 Ag '56.
(Electric meters--Cooling) (MLRA 9:10)

LOMONOS, G.K., inzhener.

Waterproof electric motor. Vest. elektroprom. 27 no.10:60-62 O '56.
(MLRA 10:9)

1. Zavod "Krasnyy metallist."
(Electric motors)

LOMONOS, G.K.

Standard pickups for mechanical remote control of pumps.
Priborostroenie no.8:32, 3 of cover Ag '61. (MIRA 14:8)
(Oil well pumps) (Automatic control)

LOMONOS, G.K., inzh.

System increasing the safety of sparkproof circuits.
Ugol' Ukr. 6 no.2:34-35 F '62. (MIRA 15:2)

1. Konotopskiy zavod "Krasnyy metallist."
(Electricity in mines)

KOT, V.I., gornyy inzh., LOMONOS, G.K., gornyy inzh.; NESTERCHUK, G.M., gornyy inzh.

Indicators of the level and the consumption of liquids. Gor. zhur. no. 12:55-58 D '65. (MIRA 18:12)

1. Institut Avtomatugleradprom, gorod Konotop.

LOMONOS, M.

Mechanizing timber deliveries on steep seams. Mast ugl. 4 no.4:18 Ap '55. (MLRA 8:6)

1. Nachal'nik uchastka shakhty no.19 - 20 kombinata Stalinugol'. (Stalino Province--Mine timbering)

LOMONOS, P.I.; FEDOROV, V.K.

Functional capacity of cortical cells in stimulation of larger hemispheres of the brain. Fiziol. zh. SSSR 37 no.5:579-586 Sept-Oct 51. (CIML 21:4)

1. Physiology Department imeni I.P. Pavlov, Institute of Experimental Medicine, Academy of Medical Sciences USSR, Leningrad.

LOMONDS, P.I.

Summation of conditioned reflexes. Fiziol. zh. SSSR 38 no. 5:553-558 Sept-Oct 1952. (CIML 23:3)

1. Physiological Department imeni Academician I. P. Pavlov of the Institute of Experimental Medicine, Academy of Medical Sciences USSR, Leningrad.

LOMONOS, P.I.

Modifications of functional level of work of cortical cells. Fiziol. zh. SSSR 39 no. 1:27-34 Jan-Feb 1953. (CIML 24:2)

1. Institute of Physiology imeni I. P. Pavlov of the Academy of Sciences USSR, Leningrad.

USSR/Biology - Physiology FD-2274

Card 1/1 Pub 33-5/18

Author : Lomonos, P. I.

Title : Effect of varying the amount of unconditional nutriment on the conditional reflex activity of dogs

Periodical : Fiziol. zhur. 40, 566-571, Sep-Oct 1954

Abstract : Investigated changes in the conditional reflex activity of dogs as a result of variations in the amount of food provided. Studies relationship between the strengths of conditional reflexes developed by strong and weak stimuli and the relationship between the processes of stimulation and inhibition. Tables; graphs. Four references, 3 of them USSR (1 since 1940).

Institution: Department of Physiology imeni I. P. Pavlov, Institute of Experimental Medicine, Leningrad

Submitted : August 25, 1951

USSR/Human and Animal Physiology (Normal and Pathological). T-12
Nervous System. Higher Nervous Activity. Behavior.

Abs Jour : Ref Zhur - Biol., No 11, 1958, 51311

Author : Lomonos, P.I.
Inst :
Title : Conditioned Reflex Activity of Dogs after Intravenous Injection of Radioactive Cobalt.

Orig Pub : V sb.: Tr. Vses. konferentsii po med. radiol. Eksperim. med. radiol. M., Medgiz, 1957, 44-49.

Abstract : When Co^{60} (3-62 mcurie) was intravenously injected into 5 dogs, intensification or tendency to intensification of positive food conditioned reflexes was observed, as well as impediment of differentiated inhibitions during the first 2 weeks after administration of the preparation. Their relative restoration took place on the 26th-28th day. Changes of energy relationships and some other disturbances of HNA [higher nervous activity] were also noted.

Card 1/2

USSR/Human and Animal Physiology - (Normal and Pathological). T
Action of Physical Factors. Ionizing Radiation.

Abs Jour : Ref Zhur Biol., No 4, 1959, 18077

Author : Lomonos, P.I.

Inst : Institute of Experimental Medicine

Title : The Changes of Conditioned Defensive Reflexes in Dogs in Radiation Sickness.

Orig Pub : Sbornik, In-t eksperim. med. AMN SSSR, 1956, T.2. 1957, 579-587

Abstract : (D) recieved general roentgen irradiation in a dose of 400 r with a power of 17 r/min. To a third D a solution of P^{32} in a dose which corresponded to about 1 r was introduced intravenously. In all D, defensive conditioned reflexes (CR; raising of paw) was produced. [illegible] latent period, the number of raisings of the paw

Card 1/2

USSR/Human and Animal Physiology - (Normal and Pathological). T
Action of Physical Factors. Ionizing Radiation.

Abs Jour : Ref Zhur Biol., no 4, 1959, 18077

in response to the conditioned stimulus, the number of respiratory movements during its duration and the number of intersignal reactions were registered. The clinical picture of the disease was determined according to morphological composition of blood and weight of the animals. In both variations of irradiation, phase changes of the values of CR were observed. The periods of relative decrease of the values of CR coincided with the critical periods of the course of radiation sickness. The periods of fall of the number of leucocytes in the blood either preceeded the periods of relative decrease of values of CR, or coincided with them. Normal interrelations between the values of CR in their decrease were preserved which apparently indicates an increase of processes of inhibition at the expense of induction influences from other regions of the nervous system.

Card 2/2

LOMONOS, P. I.

"On the State of the Stimulatory Process in the Cerebral Cortex of the Dog Under the Influence of Ionizing Radiation," by O. A. Bryukhanov and P. I. Lomonos, Physiology Laboratory, Central Roentgeno-Radiological Institute, Ministry of Health USSR, Leningrad, Fiziologicheskiy Zhurnal SSSR imeni I. M. Sechenova, Vol 43, No 2, Feb 57, pp 101-106

The purpose of the investigation was to study the state of the stimulatory process in the cells of the cerebral cortex on internal irradiation resulting from the intravenous injection of radiophosphorus (p 32).

It was found that changes in the condition of reflex activity of animals, with a general tendency towards decrease in strength of conditioned reflexes, take place after the action of ionizing radiation on the organism, regardless of the site of irradiation and the nature of the energy.

Tests of the strength of cortical excitation as shown by conditioned reflex summation and by response to caffein administration have shown that the efficiency of the cortical cells is retained the first few days, and only with the onset of radiation sickness is decreased capacity of the cortical cells observed. (U)

Sum. 1374

LOMONOS, P. I.: Doc Med Sci (diss) -- "The effect of ionizing radiations on the higher portions of the brain of dogs". Leningrad, 1959. 35 pp (Min Health USSR, Central Sci Res X-ray Radiological Inst), 250 copies (KL, No 14, 1959, 121)

LOMONOS, P.I.

Cortical regulation of the vomiting reflex following irradiation [with summary in English]. Fiziol.zhur. 45 no.2:157-162 F '59. (MIRA 12:3)

1. From the department of radiology, Institute of Experimental Medicine, Leningrad.

(ROENTGEN RAYS, effects,
on conditioned vomiting reflex in animals (Rus))
(REFLEX, CONDITIONED, eff. of radiations,
x-rays, on conditioned vomiting reflex in animals (Rus))
(VOMITING, physiol.
eff. of x-rays on conditioned vomiting reflex in animals (Rus))

40620

S/219/62/053/002/003/003
I015/I215

27.1220

AUTHOR: Lomonos, P. I.

TITLE: Effect of the preliminary administration of radioactive isotopes on the composition of peripheral blood and the survival of animals subsequently x-irradiated with a lethal dose

PERIODICAL: Byulleten' eksperimental'noy biologii i meditsiny, v. 53, no. 2, 1962, 79-82

TEXT: There are few studies known on the phenomenon of acquired radioresistance. The administration of radioactive isotopes prior to irradiation with lethal doses in order to increase survival rate, has been recently tried. The experiments were carried out on albino rats (180–200 g) and albino mice (20–25 g). The animals received J^{131}, P^{32} and methionine-S^{35} prior to x-irradiation. The rats were irradiated with 800 r and the mice with 600 r, which corresponded to $LD_{60/30}$. The time interval between the administration of the radioisotopes and the subsequent irradiation varied according to the greatest functional changes observed in various functional systems. The administration of the radioisotopes 15, 45, and 55 days prior to a whole-body x-irradiation of rats increased their survival rate by 5-23%. The effect of the administration of methionine was greater the longer the time-interval between its administration and the subsequent irradiation. Administration of methionine in mice 15 days prior to irradiation abolished the radiation injury caused by 600 r. Methionine had also a good effect on the blood picture: the number of WBC, especially of netrophiles and eosinophiles, increased. There are 4 figures and 2 tables.

Card 1/2

Effect of the...

S/219/62/002/003/003/003
I015/I215

ASSOCIATION: Laboratoriya radiobiologii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad (Laboratory of Radiobiology, Institute of Experimental Medicine, AMS USSR, Leningrad)

SUBMITTED: December 30, 1960

Card 2/2

ACCESSION NR: AP4003133 S/0241/63/008/011/0059/0063

AUTHOR: Lomonos, P. I.; Shamakhmudov, A.

TITLE: Distribution of P^{32} in rat organ tissues under the action of penetrating radiation and on introduction of ACTH

SOURCE: Meditsinskaya radiologiya, v. 8, no. 11, 1963, 59-63

TOPIC TAGS: penetrating radiation, ACTH, histohematic barrier permeability, leucocytosis, lymphopenia, eosinopenia, radiation sickness, radioactive phosphorus distribution, tissue permeability

ABSTRACT: Histohematic barrier permeability for P^{32} (20 microcuries /kg) was studied in organs of control and irradiated (800 r) rats without and with ACTH (2 units/100 g). Radioactivity ratio of 1 g tissue to 1 g blood measured by a T-25 BFL end counter served as permeability index for blood, liver, adrenal gland, heart, spleen, and brain. Blood form elements were investigated before and after ACTH was introduced. Permeability of organ tissues was determined 1 hr after P^{32} was injected and 3, 6, and 9 hrs after ACTH in control animals and up to 6th day of radiation sickness in irradiated animals.

Card 1/3

ACCESSION NR: AP4003133

In control animals without ACTH, histohematic barrier permeability is highest in the liver tissues, is lower in the kidney, adrenal gland, and spleen tissue, and is lowest in brain tissue. In irradiated animals without ACTH, permeability sharply rises on the 3d day of radiation sickness in all organ tissues under study with no significant changes on the 1st or 6th days. Within 3-6 hrs after ACTH is introduced into control animals, permeability sharply increases in the adrenal gland tissues and increases only slightly in the other organ tissues. With ACTH introduced on the 3d day of radiation sickness, tissue permeability decreases within the first few hours and in 9 hrs is restored to levels before ACTH with no significant changes in adrenal gland permeability. Increased histohematic barrier permeability of irradiated tissues appears to be caused by increased functioning of hypohpysis-corticoadrenal system and appears related to higher activity of the investigated organs. Orig. art. has: 8 tables, 2 figures.

ASSOCIATION: Laboratoriya radiobiologii instituta eksperimental'noy meditsiny* AMN SSSR (Radiobiology Laboratory of the Experimental Medical Institute AMN SSSR)

Card 2/3

ACCESSION NR: AP4003133

SUBMITTED: 20Mar62 DATE AC[illegible]: 20Dec63 ENC[illegible]00

SUB CODE: AM NO REF [illegible]: 007 OTHER[illegible] 000

Card 3/3

SOKOLOV, A., otvetstvennyy red.; LOMONOSOV, A., red.

[Program of a course on "Electrochemistry and anticorrosion coatings" for technical schools of the Ministry of the Radio Engineering Industry in the subject "Manufacture of radio insulation materials and radio parts"] Programma kursa "Elektrokhimiia i antikorroziinye pokrytiia" dlia tekhnikumov MRTP po spetsial'nosti "Proizvodstvo radioizoliatsionnykh materialov i radiodetalei." Moskva, 1956. 9 p. (MIRA 11:8)

1. Russia (1923- U.S.S.R.) Ministerstvo radiotekhnicheskoy promyshlennosti. Upravleniye uchebnymi zavedeniyami.
(Electrochemistry--Study and teaching)

LOMONOSOV, A.

Improving the work with radio amateurs. Radio no.8:8-9 Ag '54.
(MLRA 7:8)

1. Predsedatel' Moskovskogo oblastnogo komiteta Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.
(Radio clubs)

LOMONOSOV, A.

Improve the training of construction workers. Prof.-tekh.obr. 11 no.7:27 O '54. (MLRA 7:11)

1. Direktor uchebnogo punkta tresta "Stalinmetallurgstroy." (Building--Study and teaching)

107-58-6-1/58

AUTHOR: Lomonosov, A., Member of the Presidium of the TsK DOSAAF

TITLE: Let Us Distinguish the Summer Sport Season by New Records (Oznamenuyem sportivnoye leto novymi rekordami)

PERIODICAL: Radio, 1958, Nr 6, pp 1-2 (USSR)

ABSTRACT: A resolution passed on the 4th All-Union DOSAAF Congress calls for a general increase in the proficiency level of DOSAAF members in those sport branches which may find a military application. In these branches, especially in those where international competitions are held, the capabilities of Soviet sportmen must be raised to meet international standards. The instructions given by the DOSAAF Congress apply to all branches of radio sport. Local DOSAAF organizations and DOSAAF radio clubs are requested to furnish assistance to Soviet radio amateurs and to organize competitions on local levels. However, many DOSAAF organizations of the RSFSR, the Belorussian, Kazakh and Georgian SSR do not even plan competitions. The author points out that it is still time to correct this situation. So-called "fox-hunts" (detection of hidden radio stations by radio) and similar field activities are especially recommended. The

Card 1/2

Let Us Distinguish the Summer Sport Season by New Records 107-58-6-1/58

author also lists the wave ranges in which these competitions are to be conducted.

Card 2/2 1. Radio-Applications 2. Radio-Operators 3. Radio-Detection

LOMONOSOV, A., brigadir

Road toward success. Stroitel' no.4:8 Ap '60. (MIRA 13:6)

1. Kompleksnaya brigada SU-10 tresta Krasnoyarskpromstroy.
(Krasnoyarsk--Building)

L 8492-65 EWT(m)/EPF(c)/EPR/EWP(j)/T/H Pc-4/Pr-4/Ps-4 ASD(m)-3/RPL
WW/JWD/MLK/RM

ACCESSION NR: AT4033980 S/0000/63/000/000/0018/0023

AUTHOR: Andrianov, K.A., Lomonosov, A.V., Mil'gotin, I.M., Khananashvili, L.M., Shapatin, A.S.

TITLE: Synthesis of polydimethylsiloxanes and silicoorganic polyurethanes with a cycloreticular molecular structure

SOURCE: Geterotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Heterochain Macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 18-23

TOPIC TAGS: siloxane, silane, crosslinked siloxane, polyurethane, silicoorganic polyurethane, polymer, crosslinked polymer, polydimethylsiloxane, glycoxysilane, elastic polymer, thermostable polymer

ABSTRACT: Six crosslike compounds of the dimethylsiloxane and glycoxysilane series, containing hydroxyl groups at the chain ends, were synthesized (see Table 1 in the Enclosure). The dimethylsiloxane oligomers were synthesized by cleavage of octamethylcyclotetrasiloxane under the influence of KOH, reaction of the potassium salt of dimethylsiloxane obtained with silicon tetrachloride, and conversion of the reaction product to the hydroxy derivative with acetic acid, while the glycoxysilanes were synthesized by

methylsiloxane obtained with silicon tetrachloride, and conversion of the reaction product to the hydroxy derivative with acetic acid, while the glycoxysilanes were synthesized by transesterification of tetraethoxysilane or phenyltriethoxysilane with glycols. The

L 8492-65

ACCESSION NR: AT4033980

physical properties of these compounds were then investigated. By condensation of crosslike oligomers of the dimethylsiloxane series with phenylmethyl dichlorosilane, crosslinked and noncrosslinked elastic polymers were synthesized with a very low (-120C) glass transition temperature. Silicoorganic polyurethanes with a cycloreticular molecular structure, stable to 300C, were obtained in a series of reactions of glycoxysilanes with diisocyanates. The experimental conditions and procedures are described in detail. Orig. art. has: 3 figures, 1 table and 5 chemical equations.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 05May62 ENCL: 01 SUB CODE: OC

NO REF SOV: 002 OTHER: 000

L 8492-65

ACCESSION NR: AT4033980 ENCLOSURE: 01

No.	Compound	Formula	n_D^{20}	d_4^{20}	MR_D Experimental	MR_D Calculated
1	tetrakis-(octamethyl-tetrasiloxano-9-hydroxy) silane	$Si[(O-Si(CH_3)_2)_4OH]_4$	1,4060	0,9654	816,1	815,3
2	tetrakis-(hexadecamethyl-octasiloxano-17-hydroxy) silane	$Si[(O-Si(CH_3)_2)_8OH]_4$	1,4045	0,9796	815,9	815,2
3	tetrakis-(octatetracontamethyl-tetracosasiloxano-49-hydroxy)silane	$Si[(O-Si(CH_3)_2)_{24}OH]_4$	1,4053	0,9703	1798,2	1797,4
4	tetrakis-(ethyleneglycoxy)silane	$Si(OCH_2CH_2OH)_4$	1,4536	1,2642	58,50	58,04
5	tetrakis-(diethyleneglycoxy) silane	$Si(OCH_2CH_2OCH_2CH_2OH)_4$	1,4640	1,2140	101,78	102,36
6	phenyl-tris-(ethyleneglycoxy)silane	$C_6H_5Si(OCH_2CH_2OH)_3$	1,5045	1,2101	70,60	71,05

Card 3/3

L 25650-65 EPF(a)/EPR/EPA(s)-2/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4/Pt-10
RPL RM/WW
ACCESSION NR: AR5000709 S/0081/64/000/017/S036/S036

44
40
B

SOURCE: Ref. zh. Khimiya, Abs. 17S203

AUTHOR: Andrianov, K. A.; Khananashvili, L. M.; Mil'gotin, I. M.; Shapatin, A. S.; Lomonosov, A. V.

TITLE: The synthesis of polydimethylsiloxanes and silicoorganic polyurethans with a cycloreticular molecular structure

CITED SOURCE: Sb. Vysokomolekul. soyedineniya. Geterotsepn. vysokomolekul. soyedineniya. M., Nauka, 1963, 18-23

TOPIC TAGS: polydimethylsiloxane, silicoorganic polyurethan, heteroorganic polymer, polyurethan synthesis, polysiloxane synthesis, cross-linked polymer, alkylene diisocyanate, glycoxysilane, silicon tetrachloride, transesterification, alkoxysilane

TRANSLATION: Cross-linked oligomers of the dimethylsiloxane series were obtained by opening the rings of octamethylcyclotetrasiloxane under the influence of KOH and then reacting the resultant potassium salts of dimethylsiloxanes with silicon tetrachloride. Glycoxysilanes were synthesized by the transesterification of tetraethoxysilane with glycols at 155C and of phenyltriethoxysilane with glycols

Card 1/2

L 25650-65
ACCESSION NR: AR5000709

2

at 175C. The following 6 cross-linked compounds of the dimethylsiloxane and glycoxysilane series, with OH groups at the ends of the branching chains, were synthesized: tetrakis-(octamethyl-tetrasiloxano-9-hydroxy)-silane $C_{32}H_{100}O_{20}Si_{17}$; tetrakis-(hexadecamethyl-octasiloxano-17-hydroxy)-silane $C_{64}H_{196}O_{36}Si_{33}$; tetrakis-(octatetracontamethyl-tetraeicosasiloxano-49-hydroxy)-silane $C_{192}H_{580}O_{100}Si_{97}$; tetrakis-(ethyleneglycoxy)-silane $C_8H_{20}O_8Si$; tetrakis-(diethyleneglycoxy)-silane; and phenyl-tris-(ethyleneglycoxy)-silane $C_{16}H_{36}O_{12}Si$. Values for the refractive index, density, and molar refraction of the synthesized compounds are given, and it is pointed out that the density decreases with increasing molecular weight. The authors studied the condensation of tetrakis-(octamethyl-tetrasiloxano-9-hydroxy)-silane at 200C for which a reaction scheme is given, as well as that of the first 3 cross-linked compounds listed above with methylphenyldichlorosilane, resulting in products which were viscous at room temperature, readily soluble in xylene and CCl_4, and had a low glass temperature of about -120C. The authors also obtained insoluble elastic products with a glass temperature of about -120C. The reaction of the last 3 cross-linked glycoxysilanes listed above with hexamethylen- and m-toluylene diisocyanate at 20C leads to the formation of refractory (up to 300C) insoluble products which do not decompose when heated to 300C (differential thermal analysis). V. Tolstoguzov

SUB CODE: OC ENCL: 00

Card 2/2

LOMONOSOV, B. Yu.

"Electro-Technique in Pictures and Drawings," Electricity, Publ. by the Printing House of the Govt. Energy (Electrical) Publ. House, in Moscow, 1952.

PA40T13

USSR/Electricity May 1947
Voltage - Measurements
Currents, Electric - Measurements

"One Generalization of Heavyside's Formula," Prof B. Yu. Lomonosov, Dr of Technical Sciences, Moscow Energetics Institute imeni Molotov, 1 p

"Elektrichestvo" No 5

Author takes Heavyside's formula

$$i = U_0 \left\{ \frac{1}{z(c)} + \sum \frac{e^{p_k t}}{p_k Z'(p_k)} \right\}$$

which is used to determine the current and voltage when a circuit is hooked into a DC circuit, [1]. Author, however, submits a variation to this formula which

40T13

USSR/Electricity (Contd) May 1947

would permit a similar solution in the case of a sinusoidal and exponential voltage. Discusses the basis for his modification and arrives at the following formula:

$$i = \nu(t)\, g(0) + \sum_{1}^{n} \frac{e^{p_k t}}{Z'(p_k)} \int_0^t \nu(\tau) e^{-p_k \tau}\, d\tau.$$

40T13

LOMONOSOV, B. YU. PROF

ARNDT, Yu., arkhitektor; LOMONOSOV, D., inzh.

What standard plans of hotels should be like. Zhil. stroi. no.12:7-11 '62. (MIRA 16:1)

(Hotels, taverns, etc.—Standards)

SOV-127-58-10-12/29

AUTHORS: Zver'kov, S.M. and Lomonosov, G.G., Mining Engineers

TITLE: Which Explosive Does the "Medvezhiy Ruchey" Mine Need ? (Kakiye vzryvchatyye veshchestva nuzhny rudniku "Medvezhiy Ruchey" ?)

PERIODICAL: Gornyy zhurnal, 1958, Nr 10, pp 41-43 (USSR)

ABSTRACT: The mine "Medvezhiy Ruchey" of the Noril'sk Metallurgical Mining Trust is exploited by the open-pit method. Blasting works are hampered by: 1) a high fracturing of rocks; 2) waterlogged conditions in spring and summer, and 3) buildings and living quarters. Thus the explosives should possess the following characteristics: high "brisance", water and frost resistance, maximal loading density and minimal throwing capacity. Different makes of ammonite and trotyl are being used at present. The author experimented with all available varieties of these explosives and found that new explosives of better quality must be produced, since those available are unsatisfactory.

Card 1/2

SOV-127-58-10-12/29

Which Explosive Does the "Medvezhiy Ruchey" Mine Need ?

There is 1 photo, 1 graph and 1 table.

ASSOCIATION: Noril'skiy gorno-metallurgicheskiy kombinat (The Noril'sk Metallurgical Mining Combine)

1. Mining industry--USSR 2. Explosives--Effectiveness

Card 2/2

GORDEYEV, V.P., gornyy inzh.; LOMONOSOV, G.G., gornyy inzh.

Multiple-row short-delay blasting in open-pit mines of the Noril'sk Mining and Metallurgical Combine. Gor. zhur. no. 1:46-48 Ja '61. (MIRA 14:1)

1. Noril'skiy gorno-metallurgicheskiy kombinat.
(Noril'sk--Strip mining) (Blasting)

LOMONOSOV, G.G., gornyy inzh. ; ZVER'KOV, S.N.

Water blasting method of breaking oversized rocks in open pits. Gor. zhur. no.4:35-37 Ap '63. (MIRA 16:4)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki (for Lomonosov). 2. Glavnyy inzh. rudnika "Yuznyy" (for Zver'kov).
(Blasting)

RZHEVSKIY, Vladimir Vasil'yevich, prof., doktor tekhn. nauk;
BAKHTIN, Gennadiy Antonovich; LOMONOSOV, Geral'd Georgiyevich;
NOVIK, Gotfrid Yanovich

[Technology and overall mechanization of coal, ore, and rock products strip mining] Tekhnologiia i kompleksnaia mekhanizatsiia otkrytoi dobychi uglia, rud i nerudnykh iskopaemykh. Moskva, Mosk. in-t radioelektroniki i gornoi elektromekhaniki. No.3. [Preparation of rocks for mining] Podgotovka gornykh porod k vyemke. Pt.1.[Technological processes] Tekhnologicheskie protsessy. 1963. 112 p. (MIRA 17:9)

LOMONOSOV, G.G., inzh.

Studying the water infusion blasting method of crushing oversize rocks. Izv. vys. ucheb. zav.; gor. zhur. 7 no.5:69-73 '64.
(MIRA 17:12)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki. Rekomendovana kafedroy tekhnologii i kompleksnoy mekhanizatsii otkrytoy dobychi uglya, rud i nerudnykh iskopayemykh.

LOMONOSOV, I.G.

Effective designs for logging dams. Les.prom. 35 no.4: 20-22 Ap '57. (MLRA 10:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut lesoplava.
(Dams)

KHRUSTALEV, Sergey Serapionovich; TSYGANOV, B.Ya., inzh., retsenzent; LOMONOSOV, I.G., st. nauchn. sotr., retsenzent; SATIN, M.S., st. nauchn. sotr., otv. red.; BEZGODOVA, L.V., red.

[Building. Building materials; a textbook for students of the faculties of Forestry Engineering, the Mechanical Technology of Wood, Forest Management, Chemical Technology, and Engineering Economics] Stroitel'noe delo. Stroitel'nye materialy; uchebnoe posobie dlia studentov fakul'tetov lesoinzhenernogo, mekhanicheskoi tekhnologii drevesiny, lesokhoziaistvennogo, khimiko-tekhnologicheskogo, inzhenerno-ekonomicheskogo. Leningrad, Vses. zaochnyi lesotekhn. in-t, 1964. 71 p. (MIRA 18:7)

LOMONOSOV, Ivan Grigor'yevich, starshiy nauchnyy sotrudnik; ARYKIN, Ivan Grigor'yevich; VASIL'KOVA, Regina Yevgen'yevich; ZHURENKOV, Yevgeniy Aleksandrovich; LEBEDEV, Mikhail Petrovich; OVCHINNIKOVA, Dina Mikhaylovna; YUZVUK, Vladimir Yefimovich. Prinimali uchastiye: ARYKIN, I.G., starshiy nauchnyy sotrudnik; YUZVUK, V.Ye., starshiy nauchnyy sotrudnik; LEBEDEV, M.P., starshiy nauchnyy sotrudnik; OVCHINNIKOVA, D.M., mladshiy nauchnyy sotrudnik; VASIL'KOVA, R.Ye., mladshiy nauchnyy sotrudnik; ZHURENKOV, Ye.A., mladshiy nauchnyy sotrudnik. ZHURAVLEV, B.A., red.izd-va; PARAKHINA, N.L., tekhn.red.

[Album of designs of dams to be built on timber floating rivers] Al'bom konstruktsii lesosplavnykh plotin. Moskva, Goslesbumizdat, 1959. 212 p. (MIRA 13:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut lesosplava (for all, except Zhuravlev, Parakhina).
(Lumber--Transportation) (Dams)

LOMONOSOV, I. I.

OVSHINNIKOV, V.M.; NEMILOV, Yu.A.; ALEKSANDROVA, M.L.; LOMONOSOV, I.I.

Decay scheme of Ne^{23}. Izv.AN SSSR.Ser.fiz. 20 no.12:1417-1418 D '56. (MLRA 10:3)

(Neon--Isotopes)

Lomonosov, I. I.

PHASE I BOOK EXPLOITATION SOV/3503

Akademiya nauk SSSR. Radiyevyy institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted. 1,700 copies printed.

Ed.: N.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.M. Aron; Tech. Ed.: A.V. Smirnova.

PURPOSE: The volume is intended for physicists.

COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute and contains the results of studies conducted at the Institute chiefly from 1955 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several eV up to hundreds of MeV. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron energy distribution in a moderator (water), and other problems connected with the theory of neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment and of the results of tests performed under laboratory conditions. No personalities are mentioned. References accompany individual articles.

SOV/120-59-4-14/50

AUTHORS: Lomonosov, I. I., Pisarevskiy, A. N., Soshin, L. D.

TITLE: The Conversion Efficiency of NaJ(Tl) Crystals

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 70-71 (USSR)

ABSTRACT: Crystals grown by the Kyropoulos and Stockbarger methods are used with γ-rays of energy up to 1330 keV (the table lists the values, where χ is given by the second formula on p 70). Figs 1 and 2 show respectively the relation of Δ^2 and Δ^4 to $1/E$. It is concluded that the resolving power is overestimated unless proper allowance is made for the quantity b (the inherent resolving power) in the first formula on p 70. The paper contains 2 figures, 1 table and 7 references, 3 of which are English and 4 Soviet.

ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute, Academy of Sciences, USSR)

SUBMITTED: June 23, 1958.

Card 1/1

LOMONOSOV, I.I.; NEMILOV, Yu.A.; PISAREVSKIY, A.N.; TETERIN, Ye.D.

Photomultipliers designed for scintillation spectroscopy. Trudy Radiev.inst.AN SSSR 9:164-180 '59. (MIRA 14:6)
(Photoelectric multipliers)

21(3) SOV/48-23-2-19/20

AUTHORS: Nemilov, Yu. A., Lomonosov, I. I., Pisarevskiy, A. N., Soshin, L. D., Teterin, Ye. D.

TITLE: Some Problems on the Linearity of the Scintillation Spectrometer (Nekotoryye voprosy lineynosti pri stsintillyatsionnoy spektrometrii)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 257-262 (USSR)

ABSTRACT: In a more accurate investigation of the scintillation reaction of NaJ(Tl) in the case of γ excitation the authors found deviations from the reaction linearity up to 20% within the range of E_γ < 100-150 kev (Ref 6). This problem was investigated according to a method already applied in previous papers. The measurements were carried out by means of crystals produced at the Institut kristallografii AN SSSR (Crystallographical Institute of the AS USSR) and in the Khar'kov Works. The crystals were bred according to methods devised by Kiropulos and Stokbarger. The measurement results of various crystals NaJ(Tl), CsJ(Tl), KJ(Tl) on deviation of the scintillation reaction from linearity within the range 10-1500 kev are

Card 1/3

listed in a table. Perceptible deviations were found within the range 50-100 kev. It represented a minimum which attained different values in the individual crystals (Fig 1); the least value was found with KJ(Tl). Besides, the dependence of resolving power on the energy of the measured radiation and the effectiveness of conversion of the crystals were investigated. In the case of ideal crystals there is a linear dependence of the square half width of spectrometer lines Δ_c^2 on E_γ^{-1}. In the case of small E_γ values this dependence is expressed by $\Delta_c = \sqrt{\Delta_K^2 + \Delta_\phi^2 \cdot \gamma}$, where Δ_K denotes crystal resolution and Δ_ϕ that of FEU. In the case of high energies the effectiveness of conversion $\varkappa$ is to be determined according to formula (6) (Ref 14). For a number of E_γ values the corresponding $\varkappa$ values are given in %. A duplication of lines of the total energy by NaJ(Tl) crystals was found, the presence of which possibly may be attributed to crystal water. There are 4 figures, 1 table, and 15 references, 4 of which are Soviet.

SOV/48-23-2-19/20

Some Problems on the Linearity of the Scintillation Spectrometer

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR
(Radium Institute imeni V. G. Khlopin of the Academy of Sciences, USSR)

Card 3/3

Lomonosov, I. I.

82554

S/181/60/002/007/037/042
B006/B060

24.3500

AUTHORS: Lomonosov, I. I., Nemilov, Yu. A.

TITLE: The Effect of an Electric Field on the Scintillation Process in CsI(Tl)

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 7, pp. 1629-1631

TEXT: The problem of the mechanism of the energy transfer to the luminescence centers is still in the discussion stage. For the phosphorescence of alkali halide crystal, two migration mechanisms are regarded as possible: the exciton- and the electron-hole mechanism. If the latter is correct the luminescence intensity must be susceptible to influence an outer electric field. In order to study this, the authors conducted investigations on a CsI(Tl) crystal (diameter 20 mm, thickness 150 μ) with a setup shown schematically in Fig. 1. The crystal was placed between a transparent electrode (SnO_2 film on glass) and a 5 μ thick aluminum foil, in the case of an excitation by a particle, and a semitransparent platinum layer on a quartz disk in the case of a photoexcitation. The sources of the exciting radiation were $Y^{91}(\beta)$, $Pu^{239}(\alpha)$, and a spectrophotometer of the type

Card 1/2

82554

The Effect of an Electric Field on the Scintillation Process in CsI(Tl)

S/181/60/002/007/037/042
B006/B060

СФ-11 (SF-11); the crystal emission was recorded with a photomultiplier. The pulse height spectrum was taken with a 128-channel analyzer of the type AMA-3C (AMA-3S). The investigations yielded the following results: 1) The total radiation of the phosphor (fluorescence + phosphorescence), excited by fast electrons, decreases with growing field strength, as can be seen from Fig. 2. 2) A study of the pulse height spectrum showed that, within the limits of statistic error, no influence of the field can be observed. 3) On the excitation of phosphor by ultraviolet light, the emission intensity does not depend on the field applied in the whole range of waves between 200 - 330 mμ. 4) On the excitation of phosphor by alpha particles neither the total radiation nor the pulse amplitude depend on the field applied. These results support the exciton mechanism. There are 2 figures and 6 references: 4 Soviet and 1 Swiss.

SUBMITTED: November 28, 1959

Card 2/2

VYAZEMSKIY, V.O.; LOMONOSOV, I.I.; PISAREVSKIY, A.N.; PROTOPOPOV, Kh.V.; RUZIN, V.A.; TETERIN, Ye.D.. Prinimal uchastiye KLYUCHNIKOV, V.N.; RYBAKOV, B.V., red.; SMOLYAN, G.L., red.; POPOVA, S.M., tekhn. red.

[Scintillation method in radiometry] Stsintilliatsionnyi metod v radiometrii. By V.O.Viazemskii i dr. Moskva, Gos. izd-vo lit-ry v oblasti atomnoi nauki i tekhniki, 1961. 429 p. (MIRA 14:9)
(Scintillation counters)

L 32631-66
ACC NR: AP6019003 SOURCE CODE: UR/0109/66/011/006/1145/1147

AUTHOR: Volina, V. V.; Lomonosov, I. I.

ORG: none

TITLE: Noise and stability of photomultipliers

SOURCE: Radiotekhnika i elektronika, v. 11, no. 6, 1966, 1145-1147 .

TOPIC TAGS: photomultiplier, multiplier phototube

ABSTRACT: The results are reported of an experimental investigation of static and dynamic noise characteristics of 400 specimens of FEU-13, -37, and -43 Soviet-made photomultipliers. Their suitability for operating in tritium scintillation counters was determined. At voltages corresponding to a dynamic multiplication factor of 10^6, the following characteristics were measured: (a) number of single-electron pulses, (b) dark current, (c) noise-characteristic plateau (anode pulse number vs. supply voltage at a constant discrimination threshold). Numerical values of the above characteristics are reported. It is found that the photomultiplier stability can be quickly evaluated by comparing the thermionic emission of its photocathode with its dark current. "In conclusion, the authors wish to thank Yu. A. Nemilov for discussing the results and N. A. Surov for his help in the experimental work." Orig. art. has: 3 figures. [03]

SUB CODE: 09 / SUBM DATE: 24Jul65 / ORIG REF: 002 / OTH REF: 002/ ATD PRESS: 5023

Card 1/1 UDC: 621.383.292

LOMONOSOV, I. S., Cand Geol-Min Sci -- (diss) "Subterranean waters of the northwestern depression of the Irkutsk coal-bearing basin and the adjacent Sayan Mountain area." Len, 1959. 14 pp (Min of Higher Education USSR. Len Order of Lenin and Labor Red Banner Mining Inst im G. V. Plekhanov), 150 copies. (KL, 50-59, 125)

LOMONOSOV, I.S.

Formation of underground waters in Ordovician and middle Jurassic sediments in the northwestern part of the Irkutsk Coal Basin. Trudy Vost.-Sib.fil.AN SSSR no.10:137-142 '59. (MIRA 13:4)
(Irkutsk Basin--Water, Underground)

TKACHUK, V.G., doktor geol.-miner. nauk, otv. red.; LOMONOSOV, I.S., kand. geol.-miner. nauk, red.; PINNEKER, Ye.V., kand. geol.-miner. nauk, red.; YASHITSKAYA, N.V., red.; FILIPPOVA, B.S., red.; SHOKHET, B.S., red.izd-va; GUS'KOVA, O.M., tekhn. red.

[Mineral waters of Eastern Siberia] Mineral'nye vody Vostochnoi Sibiri. Moskva, Izd-vo AN SSSR, 1963. 148 p. (MIRA 17:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut zemnoy kory.

PINNEKER, Ye.V.; LOMONOSOV, I.S.

Concentrated brines of the Siberian Platform and their analogues in Asia, Europe, Africa, and America. Izv. AN SSSR. Ser. geol. 29 no.10:30-44 O '64. (MIRA 17:11)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR, Irkutsk.

LOMONOSOV, I.S.; MURAV'YEVA, L.V.

Underground waters of traps in the southwestern part of the Siberian Platform. Mat. Kom. po izuch. podzem. vod. Sib. i Dal' Vost. no.2:116-124 '62. (MIRA 17:8)

AL'TSHULER, S.Z., inzhener; LOMONOSOV, M.A., inzhener; ROZENTAL', A.Ya., inzhener; RYABKO, N.M., inzhener.

Damage to turbogenerator rotors produced by the British firm "BTH." Elek.sta. 28 no.9:86-87 S '57. (MIRA 10:11)
(Turbogenerators)

GERMAN, V.L.; LOMONOSOV, M.I.

Origin of cavitation near the vibrating parts of hydraulic machinery. Dop. AN URSR no.2:111-114 '54. (MLRA 8:4)

1. Fiziko-tekhnichniy institut AN URSR. Predstavleno deystvitel'nym chlenom AN USSR K.D.Sinel'nikovym.
(Cavitation)

SUBJECT USSR/MATHEMATICS/Functional analysis CARD 1/1 PG - 170
AUTHOR LOMONOSOV M.I.
TITLE On the decomposition of the operator $-\left[\frac{d}{dy}\left[p(y)\frac{d}{dy}U\right]+q(y)U\right]$ in terms of eigenfunctions.
PERIODICAL Doklady Akad. Nauk 105, 412-415 (1955)
reviewed 7/1956

The author considers the selfadjoint differential operator of second order

$$L[U] = -\frac{d}{dy}\left[p(x)\frac{d}{dy}U\right] + q(y)U$$

given on the semi-interval $0 \leqslant y < c \leqslant \infty$, where $p(y) > 0$ is continuous, $q(y)$ is real and summable on every segment $[0,d]$, $d < c$. Under the assumption of two times differentiability of $p(y)$ this operator has been treated several times by Marčenko and Levitan. The author generalizes these well known results to the case that $p(y)$ is only one times differentiable. The representation is similar to that of Marčenko (Izvestija Akad. Nauk, Ser. mat. 19, (1955)No.6).

LOMONOSOV, M. I., Candidate Phys-Math Sci (diss) -- "Some asymptotic formulas for spectral functions and traces of differential second-order operators". Khar'kov, 1959. 8 pp (Min Higher Educ Ukr SSR, Khar'kov Order of Labor Red Banner State U im A. M. Gor'kiy), 150 copies (KL, No 24, 1959, 126)

LOMONOSOV, M.V.

Fundamental solutions to elliptic equations. Dokl. AN SSSR 152 no.2:269-271 S '63. (MIRA 16:11)

1. Predstavleno akademikom S.L. Sobolevym.

Lomonosov, N. M.

AUTHOR: Sergeyev, A. S., Docent 105-58-4-30/37

TITLE: Dissertations (Dissertatsii)

PERIODICAL: Elektrichestvo, 1958, Nr 4, pp. 89 - 90 (USSR)

ABSTRACT: For the Degree of a Candidate of Technical Sciences, 1948 - 1954.
At the Moscow Electromechanical Institute of Railroad Traffic Engineers (Moskovskiy elektromekhanicheskiy institut inzhenerov zheleznodorozhnogo transporta).
N. M. Lomonosov, on April 28, 1948: "Method for the Determination of Soil Parameters in the Pylon Construction types of a Contact Network". Official opponents were: Doctor of Techn. Sciences Professor V. B. Medel' and Candidate of Technical Sciences I. I. Vlasov.
M. Ye. Krest'yanov, on June 2, 1948: "Analysis of the Problem on the Selection of the Most Favorable Line Cross Section in the Contact Network". Official opponents were: Doctor of Technical Sciences Professor M. A. Petrov, Engineer K. S. Sal'nikov and Candidate of Economic Sciences Docent A. L. Lur'ye.

Card 1/4

Dissertations

105-58-4-30/37

V. V. Matyashevich, on June 23, 1948: "Influence of Traffic Organization on the Load of Substations and the Power Loss in the Contact Network". Official opponents were:Doctor of the Technical Sciences V. B. Medel', Engineer L. I. Gruber and Engineer L. M. Pertsovskiy.

G. V. Fominskiy,on June 23, 1948: "Improvement of the Characteristic of the Electrolocomotives ВП-22 and ВЛ 22М in the Case of Parallel Operation in a System of Many Units". Official opponents were: Doctor of Technical Sciences Professor K. G. Markvardt and Candidate of Technical Sciences S. M. Serdinov.

I. I. Kanter, on October 26, 1949: "Self-Exciting Threephase Invertors(Converter)". Official opponents were: Doctor of Technical Sciences M. A. Chernyshev and Candidate of Technical Sciences Docent G. G. Markvardt.

N. V. Lorents,on March 29, 1950: " Investigation of the Transition Processes in Traction Motors of D. C. Electrolocomotives". Official opponents were: Doctor of Technical Sciences Professor N. V. Gorokhov and Candidate of Technical Sciences P. N. Shlyakhto.

Card 2/4

I. I. Beneshevich, on June 28, 1950: " Influence of the Parameters and the Mode of Operation in Electric Railroads With Battery Car Transport on the Principal Structure of Automation Devices". Official opponents were: Doctor of Technical Sciences Professor V. B. Medel' and Engineer L. M. Pertsovskiy.

Ye. G. Gnilosyrov, on February 28, 1951: " Productivity and Capacity Analysis of Fuel- and Electric-Railroad Stoves". Official opponents were: Doctor of Technical Sciences P. K. Konakov and Doctor of Technical Sciences Professor N. V. Gorokhov.

V. A. Shilovskiy, on June 25, 1952: " Investigation of the Magnetic System of Traction Motors of Battery Cars (Section C^P)". Official opponents were: Professor V. B. Medel' and Candidate of Technical Sciences Docent P. M. Shlyakhto.

N. S. Pomiluyko, on May 27, 1953: " Investigation of Electromagnetic Phenomena in the D.C. Traction Motor for the Purpose Extending the Control Properties and for Determining the Possibility of a Voltage Increase". Official opponents were: Doctor of Technical Sciences Professor Ye. M. Mitusov

and Doctor of Technical Sciences Professor K. G. Markvardt. V. N. Pupynin, in January 1954: " Protection of the Contact Network of Electric Railroads Against Short-Circuit Currents". Official opponents were: Doctor of Technical Sciences M. A. Chernyshev and Candidate of Technical Sciences Docent I. Ya. Ryabkovskiy.

AVAILABLE: Library of Congress

1. Electrical engineering-Reports

Card 4/4

LOMONOSOV, N.M., kand.tekhn.nauk

Generalization of practices in designing catenary systems ("Designing catenary systems for electrified railroads" by I.I.Vlasov, B.G.Porshnev, A.V.Fraifeld. Reviewed by N.M.Lomonosov) Zhel.dor.transp. 42 no.12:91 D '60. (MIRA 13:12)

(Electric railroads--Wires and wiring)
(Vlasov, I.I.) (Porshnev, B.G.) (Fraifeld, A.V.)

SAL'NIKOV, Ivan Stepanovich, dots.; LOMONOSOV, Nikolay Matveyevich, kand. tekhn. nauk, dots.; PODOL'SKIY, L.R., inzh., retsenzent; KORSHUNOV, A.M., inzh., retsenzent; PERSKIY, G.M., inzh., retsenzent; SIDOROV, N.I., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Organization of the management of electrified railroads]Organizatsiia khoziaistva elektrifitsirovannykh zheleznykh dorog. Moskva, Transzheldorizdat, 1962. 349 p. (MIRA 15:12)
(Railroads--Electrification)
(Electric railroads--Management)

IOMONOSOV, P.I.; SHAMAKHMUDOV, A.

Distribution of P^{32} in the tissue of rat organs under the effect of ionizing radiation and introduction of ACTH. Med. rad. 8 no.11: 59-63 N '63. (MIRA 17:12)

1. Iz laboratorii radiobiologii Instituta eksperimental'noy meditsiny AMN SSSR.

LYSOGOROV, S.D., doktor sel'skokhozyaystvennykh nauk; LOMONOSOV, P.I.

Controlling drought in the southern steppe of the Ukraine.
Zemedelie 26 no.3:21-28 Mr '64. (MIRA 17:4)

1. Glavnyy agronom kolkhoza imeni Kirova Belozerskogo proizvodstvennogo upravleniya.

KHOVYAKOVA, R.F.; LOMONOSOV, S.A.

Method for detecting antimony in copper alloys without weighed sampling. Trudy Ural.politekh.inst. no.96:142-145 '60. (MIRA 14:3)

(Antimony--Analysis) (Copper alloys)

LOMONOSOV, S.A.; RYBAKOVA, Yu.A.; PODCHAYNOVA, V.N.; BEDNYAGINA, N.P.

Extraction sepa· tion of thallium using 1,5-dibenzimidazolylformazans. Zhur.anal.khim. 19 no.9:1062-1066 '64. (MIRA 17:10)

1. Ural'skiy politekhnicheskiy institut imeni Kirova, Sverdlovsk.

LOMONOSOV, S.A.; MURSHTEYN, M.K.

Complex-forming groups of p,p'-bis-dimethylaminodiphenyl-3-(9-cyano-ethyl)-carbazolylmethyl chloride. Zhur. anal. khim. 20 no.3:289-293 '65. (MIRA 18:5)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut, Sverdlovsk.

LOMONOSOV, S.A.; POLUNINOVA, V.N.; RYBINA, V.Ye.

Determination of thallium and antimony in cadmium oxide. (MIRA 18:12)
Zav.lab. 31 no.4:420 '65.

1. Ural'skiy politekhnicheskiy institut.

BUKLER, Veniamin Osherovich; RABINOVICH, Yuriy Izrailevich; ANGELEVICH, N.E., inzh., retsenzent; GIRSHMAN, G.Kh., inzh., retsenzent; LOMONOSOV, S.Ya., inzh., retsenzent; RUBINCHIK, M.M., inzh., retsenzent; FEDOSEYEV, D.N., red.; ZHITNIKOVA, O.S., tekhn.red.

[Assembling of radio equipment] Sborka radioapparatury. Moskva, Gos.energ.izd-vo, 1960. 347 p. (MIRA 13:12)
(Radio--Equipment and supplies)

LOMONOSOV, V.

Instilling qualities of will in parachute jumpers. Kryl.rod. 11 no.9:21-22 S '60. (MIRA 13:9)
(Parachuting)

VASIL'YEV, Fedor Stepanovich; LOMONOSOV, Vasiliy Grigor'yevich; KAZAKOV, N., red.

[Flax is our wealth] Len - nashe bogatstvo. Smolensk, Smolenskoe knizhnoe izd-vo, [n.d.] 39 p. (MIRA 17:7)

1. Predsedatel' khokhoza "Krasnyy dobrovolets" Smolenskogo rayona (for Vasil'yev). 2. Predsedatel' opornopokazatel'nogo khozyaystva kolkhoza im. M.Gor'kogo Yel'ninskogo rayona (for Lomonosov).

LOMONOSOV, VLADIMIR GRIGOR'YEVICH

EPT
.R93024

Znat' Konkretnuyu Ekonomiku (Understanding Applied Economics, by) V. Lomonosov I A. Klement'yeva.
Moskcow, Moskovskiy Rabochiy, 1957.
59 P.

TSUKANOV, Vladimir Andreyevich, kand.tekhn.nauk; LOMONOSOV, V.T., obshchiy red.; KHINSKIY, P.D., kand.tekhn.nauk, red.; VASIL'YEVA, V.P., red.izd-va; SOKOLOVA, L.V., tekhn.red.

[Using manganese in alloying structural steels] Legirovanie konstruktsionnoi stali margantsem. Pod obshchei red. V.T.Lomonosova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 206 p. (MIRA 12:4)

(Manganese steel)

DEVYATKO, Yu.N.; LOMONOSOV, V.V.; URIN, M.G.

Excitation of vibration levels in β-decay of nonspherical nuclei. Izv. AN SSSR. Ser. fiz. 27 no.11:1427-1429 N '63. (MIRA 16:11)

ACCESSION NR: AP4042570 S/0056/64/046/006/2070/2077

AUTHORS: Devyatko, Yu. N.; Lomonosov, V. V.; Urin, M. G.

TITLE: Vibrational-rotational interaction in deformed nuclei

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2070-2077

TOPIC TAGS: pair theory, quadrupole moment, vibration spectrum, rotation spectrum, oscillator strength, Hamilton equation

ABSTRACT: The parameters of vibration-rotation interaction in deformed nuclei are calculated by means of a microscopic description, using a model in which pairing and quadrupole-quadrupole interactions between nucleons are taken into account. The Hamiltonian of the vibration-rotation interaction is obtained in the same way as in the theory of molecular spectra, and the parameters of this Hamiltonian are calculated for the "cranking" model with account of the Cooper pair correlations. First order effects with respect to the vibration-

Card 1/2

ACCESSION NR: AP4042570

rotation interaction are considered. The calculations performed in the quasiclassical approximation for particles subject to an oscillator potential are compared with experimental data. In view of the crudeness of the model, only qualitative agreement is obtained between the calculated and experimental values. "The authors wish to thank D. F. Zaretskiy for very valuable discussions." Orig. art. has: 2 tables and 27 formulas.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute)

SUBMITTED: 06Aug63 ENCL: 00

SUB CODE: NP NR REF SOV: 006 OTHER: 011

Card 2/2

L 24817-65 EWT(1)/EWT(m)/T/EEC(b)-2 DIAAP/IJP(c)

ACCESSION NR: AP5004413 S/0056/65/048/001/0368/0374

AUTHOR: Zaretskiy, D. F.; Lomonosov, V. V. 19

TITLE: Spontaneous emission of gamma quanta from crystals 21

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 1, 1965, 368-374

TOPIC TAGS: exciton, nuclear exciton, gamma emission, emission level width, spontaneous emission, exciton propagation

ABSTRACT: The conditions are investigated, under which a gamma quantum radiated by one of the nuclei without recoil (Mossbauer effect) can be absorbed by another nucleus of the same type, so that the excitation (nuclear exciton) can propagate over an entire host crystal consisting of excited and unexcited nuclei of the same type. It is shown that when a nuclear exciton is produced, the main characteristics of spontaneous emission change markedly, because angular anisotropy appears and the gamma quantum flux is concentrated predominantly in the direction of the reciprocal-lattice vector. The emission probability in this direction is

Card 1/2

L 24817-65

ACCESSION NR: AP5004413

4

estimated to be approximately equal to the square of the effective number of nuclei. It is also shown that the formation of a nuclear exciton is connected with an increase in the width of the emitting level by a factor proportional to the cube root of the number of effective nuclei. It is thus possible to obtain sharply directional beams of monochromatic gamma quanta and the lifetimes of the nuclear isomers can be greatly reduced when such isomers are placed in a crystal consisting of unexcited nuclei of the same sort. "We thank F. L. Shapiro for valuable remarks and also V. K. Voytovetskiy and S. M. Feynberg for discussions." Orig. art. has: 30 formulas.

ASSOCIATION: Institut atomnoy energii (Insititute of Atomic Energy)

SUBMITTED: 28Jul64 ENCL: 00 SUB CODE: SS, OP

NR REF SOV: 004 OTHER: 003

Card 2/2

L 41010-65 EWT(m) Peb DIAAP

ACCESSION NR: AP5007702 S/0367/65/001/001/0032/0037

AUTHOR: Lomonosov, V. V.; Urin, M. G.

TITLE: Interaction of the Beta and Gamma bands in deformed nuclei

SOURCE: Yadernaya fizika, v. 1, no. 1, 1965, 32-37

TOPIC TAGS: Beta Gamma band interaction, deformed nucleus, level interaction, Alaga rule correction, quadrupole nuclear interaction, pairing nuclear interaction

ABSTRACT: Collective levels of strongly deformed nuclei may be treated within the framework of the simple rotational model of spheroidal nucleus. Experimental deviations from the predictions of the simple rules may be explained by the vibrational-rotational interactions and interactions with one-particle degrees of freedom. On the basis of microscopic descriptions, the parameters of such interactions were deduced earlier without the introduction of any new constants (see, e.g., V. Radojevic, A. Sobiczewski, Z. Szymanski, Nucl. Phys., 38, 607, 1962; Yu. N. Devyatko, V. V. Lomonosov, M. G. Urin, ZhETF, 46, 2070, 1964). The present paper discusses theoretically the interactions between the β and γ-bands as the result of the vibrational-rotational interactions; using the pairing in-

Card 1/2

L 41010-65

ACCESSION NR: AP5007702

2

teraction and quadrupole interaction model, the authors estimate the magnitude of the appropriate interaction parameter. The nonadiabatic character of the vibrational motion turns out to be an essential feature of the estimation procedure. The results show that in nuclei with anomalously close β and γ vibrational levels (in isotopes of Th, U, Pu), the β-γ band interaction may lead to observable effects. Calculated correction for the Alaga rules caused by the vibrational-rotational interactions are tabulated for Th^{230}, Th^{232}, U^{232}, U^{231}, U^{238}, Pu^{238}, and Pu^{240}. "The authors thank D. F. Zaretskiy for useful discussions." Orig. art. has: 22 formulas and 1 table.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute)

SUBMITTED: 30Jun64 ENCL: 00 SUB CODE: NP

NO REF SOV: 007 OTHER: 004

Card 2/2

L 36377-66 EWT(m)/T

ACC NR: AP6017590 SOURCE CODE: UR/0367/66/003/002/0263/0267

AUTHOR: Zaretskiy, D. F.; Lomonosov, V. V.

ORG: none

TITLE: Concerning certain features of the radiation of gamma quanta from nuclei in a crystal lattice

SOURCE: Yadernaya fizika, v. 3, no. 2, 1966, 263-267

TOPIC TAGS: gamma radiation, excited nucleus, nuclear isomer, nuclear energy level, crystal lattice structure, line width, spectral distribution, angular distribution

ABSTRACT: This is a continuation of earlier work by the authors (ZhETF v. 43, 368, 1965) where it is shown that under certain conditions collective nuclear excitation (nuclear exciton) can exist in an ideal single crystal, and that this exciton has a decay width which differs noticeably from the natural width of the nuclear level. The present article is devoted to a study of the singularities of radiative decay of nuclear levels in the case when the conditions for the existence of a nuclear exciton are present, and to a study of the spectral and angular distribution of the gamma-quantum flux in this case. To this end, one of the methods of generation of nuclear collective excitation and the effects associated with it is investigated, and the radiation from a recoilless nucleus placed in a definite crystal lattice point is determined. This recoilless nucleus is assumed for simplicity to be a two-level isomer. All the nuclei in the crystal are assumed to be of the same kind as the radiating

Card 1/2

L 36377-66

ACC NR: AP6017590

nucleus, and line splitting is neglected. From the equations of motion the authors determine the amplitude of the state corresponding to the case when the isomer is excited but the other nuclei are not, the time dependence of the decay probability of the isomer, and the spectral and angular distribution of the gamma quanta emitted under definite relations between the wavelength of the radiation and the lattice constants. The results are extended to a three-level isomer and to radiation of more than one nucleus in the crystal. It is concluded that the existence of the nuclear exciton can be ascertained by observation of the spectral and angular distribution of the gamma-quantum flux when the condition $K = 2\pi b$ is satisfied (K - wave vector of the radiation, b - reciprocal lattice vector). The authors thank V. K. Voytovetskiy for useful discussions. Orig. art. has: 16 formulas.

SUB CODE: 20/ SUBM DATE: 08Jan65/ ORIG REF: 002/ OTH REF: 001

Card 2/2

SACHKOV, A.F., kand.tekhn.nauk; LIFANOV, A.I., inzh.; LOMONOSOV, V.Yu., inzh.

Removing dust from the air in drilling holes in upraises. Gor. zhur. no.8:68-69 Ag '63. (MIRA 16:9)

1. TSentral'nyy nauchno-issledovatel'skiy gornorazvedochnyy institut tsvetnykh, redkikh i blagorednykh metallov, Moskva.
(Mine dusts—Removal)

LOMONOSOV, V. Yu.

DECEASED

c. '63

1964

Electric power
Electro magnetic fields

SOV/50-59-6-2/17

3(7)
AUTHORS: Dushkin, P. K., Lomonosov, Ye. G., Tatarskaya, M. S.

TITLE: Forecast of the Formation of Cyclones and Anticyclones by Means of a Computer (Prognoz tsiklo- i antitsiklogeneza s pomoshch'yu vychislitel'noy mashiny)

PERIODICAL: Meteorologiya i gidrologiya, 1959, Nr 6, pp 11 - 16 (USSR)

ABSTRACT: The following may be seen from the data available: in a number of cases the barotropic forecasts for one day of the baric field on the mean level prove to be true in most cases. The coefficients for the correlation between the forecast and the actual meteorological tendencies of one day attain the values of from 0.8 - 0.9. From case to case, however, a rather considerable variability of the correlation coefficient is observed. Therefore the observers were obliged to operate with forecasting schemes which take into account the three-dimensional atmospheric structure. More accurate solutions of the equations of the hydrothermodynamics of the atmosphere were obtained in the USSR. On this basis it was possible to work out a number of forecasting models (Refs 1,2,3). The numerical forecast of the baric field is in this case on several levels

Card 1/3

based upon the integral-solution by N. I. Buleyev and G. I. Marchuk: formula (2). This solution of (2) is - applied to the daily forecast of the charts of the absolute baric topography of 850, 500 and 300 mb - to be approximated by sums. In this connection the integration is to be carried out along the vertical line η by means of the suspended band method and in the horizontal plane r, φ according to rings: formula (3). The method used for the solution of this task is shown here. Forecasting the baric field according to this method takes approximately one hour with the computer "Strela". The analysis of the series of numerical baroclinic forecasts shows that they are - with respect to quality - better than the barotropic forecasts on the corresponding level. The taking into account of the three-dimensional baroclinic atmospheric structure in the model with three levels permitted the elimination of the most striking disadvantage: of two-dimensional forecasts. The shifting of the baric formations is far more accurately forecast according to the new scheme. The investigation of the series of numerical forecasts according to the

scheme of formula (3) shows that this scheme gives as a rule the possibility of forecasting the formation of cyclones and anticyclones. Table 1 gives the results of several forecasts for one day of the charts of absolute baric topography of 850, 500 and 300 mb according to observation data obtained at 03 o'clock. The formation of cyclones and anticyclones was observed in the seven cases mentioned. All new formations were well calculated. The individual examples are demonstrated. Summarizingly it is stated that the use of the baroclinic scheme of forecasting with a higher number of levels permits - even within the framework of the usual physical approximations - the more accurate advance-calculation of the formation of cyclones and anticyclones in the free atmosphere. I. A. Kibel' assisted the authors with his advice in working at the forecast scheme with a higher number of levels. There are 4 figures, 1 table, and 4 references, 3 of which are Soviet.

~~3(7)~~ 3.5000

AUTHORS: Dushkin, P. K., Lomonosov, Ye. G.

SOV/50-60-1-2/20

TITLE: On the Vertical Currents in the Troposphere

PERIODICAL: Meteorologiya i gidrologiya, 1960, Nr 1, pp 3-9 (USSR)

ABSTRACT: Vertical motions of air masses can be only determined in the mathematical way. A system of equations with a quasigeostrophic, static, and adiabatic approximation can be made use of. Both the vertical velocity $\tau = \frac{dp}{dt}$ in the standard coordinate system x, y, p, t, and its analog w in the stationary coordinate system x, y, z, t, appear then to be functions of the field of isobar level heights. It is sufficient for diagnostic and prognostic calculations of τ(w) to know the field z. Here, the calculation of τ was made by utilizing the prognostic model with 3 levels of baric topographic maps for the isobaric planes of 850, 500, and 300 mb (Ref 3). To calculate the vertical currents, equation (1) was used for the heat indraft under consideration of the mentioned approximations. The first summand of formula (1) denotes the contribution brought about by thermal advection, the second summand denotes the contribution brought about by

Card 1/4

temperature change. Both summands are approximated in the working formulas, with the fields z and q being calculated according to the three-level model (established on the strength of the solution by N. I. Buleyev and G. I. Marchuk (Ref 2)). $q = \frac{dz}{dt}$ is the tendency of the isobar level height. The vertical currents caused by the friction $\tau_{friction}$ are calculated on the strength of a scheme based on the solution by I. A. Kibel' (Ref 5): formula (2). It follows therefrom that in the cyclonic regions $\tau_{friction} < 0$ holds since $\Delta z > 0$. A downdraught is observed in the anticyclonic regions. The working formulas (3) for the calculation of vertical currents at a certain point are written down on the levels I - III. The first summand describes the vertical currents caused by the thermal advection $\tau_{advection}$, the second summand the ones caused by the local temperature change (nonstationary state) τ_q, and the third summand the vertical currents caused by the turbulent friction $\tau_{friction}$. τ is determined from (3) and the formulas serving for the calculation of the vertical velocity w are set up

(by using $\tau = \frac{pg}{RT}(q-w)$, where g denotes the gravitational constant). Formulas (3) can be prognostic or diagnostic, depending on which z-field is utilized for the calculation. The vertical currents obtained here by the aid of a calculating machine for the regular point network of the points of Western Europe and of the European part of the USSR are analyzed. Calculations are shown to confirm the existence of a so-called "mean level" with $\frac{d\tau}{dp} = 0$ in the atmosphere. The investigation of the systematic errors of many out of a hundred of numerical barotropic prognoses of ΔT_{700} maps revealed that the errors change their sign on the transition from one season to another. An investigation is made here of the structure of vertical currents according to altitude, and the influence of individual physical factors on the magnitude of the vertical currents is estimated. On the strength of examples the authors show a relationship of practical importance between the fields of vertical motions on the one hand, and the cloudiness and precipitations on the other. The method shown here for the prognosis of vertical currents in 3 levels of the troposphere

makes it possible to compute a vertical velocity field which is in good agreement with the cloudiness- and precipitation fields. On the strength of an analysis made of the vertical current fields at different levels of the troposphere and a statistical interpretation of the vertical velocities, mean characteristics were obtained here. Papers by A. F. Dyubyuk (Ref 4), N. V. Lebedeva (Ref 6), and N. I. Buleyev (Ref 1) are mentioned. There are 2 figures, 1 table, and 6 Soviet references.

86643

9.7800
3.5000
6.1130

S/050/60/000/012/001/005
B012/B054

AUTHORS: Dushkin, P. K., Lomonosov, Ye. G., Lunin, Yu. N.

TITLE: Experience Made With the Numerical Forecast of Humidity, Cloudiness, and Precipitations With the Aid of a Computer

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 12, pp. 3 - 10

TEXT: The present paper describes the first experience made with the forecasting of cloudiness and precipitations on the basis of predeterminations of pressure fields, vertical currents, and humidity. Pressure was forecast by a numerical scheme with three levels set up according to the solution found by N. I. Buleyev and G. I. Marchuk (Ref.1). The equations for the heat supply are used in adiabatic approximation to calculate orientated vertical currents τ. The method of forecasting is explained in Ref.3. In humidity forecasts, the vertical currents must be interpolated for the 850, 700, and 500 mb levels by means of the interpolation polynomial of the 4th order. When determining the polynomial coefficients, the boundary conditions for τ at sea-level altitude and on the upper atmospheric boundary are used additionally. When calculating the dew-point

Card 1/8